

REMARKS

Applicant thanks the Examiner for the close review of the claims, and for indicating that claims 5-7, 10-13, and 16-18 are patentable over the art of record.

Applicant respectfully notes that the Examiner rejects claims 1-4 and 8-9 as being anticipated by FR 2714151 of Pernaud (the '151 reference). After reviewing the '151 reference, Applicant respectfully deems that the claims, as originally presented, are patentable for the following reasons.

Initially, Applicant respectfully notes that the '151 reference does not teach or describe a flame arrestor. Rather, the device taught and described by Pernaud is a heat exchanger. This is wholly different than a flame arrestor. The purpose of a heat exchanger is to efficiently transfer heat between fluids. If the heat is derived from a flame, the flame must be made to flow over as much of the heat exchanger as possible.

The purpose of a flame arrestor, on the other hand, is to stop or inhibit further progress of a propagating flame. The flame arrestor is typically employed, for example, in pipelines that carry flammable gases, and on ignition sources (such as exhaust pipes of internal combustion engines) that are operating in flammable environments. The flame arrestors halt the flame in the shortest distance possible. The flame is also covers as little of the arrestor as possible.

In summary, a heat exchanger is a very different element, and hence completely non-analogous to the present case.

The Examiner also rejects claim 14 as being obvious in light of the '151 reference. The Examiner notes that the housing tube is square, and hence it would be obvious to use a round tube.

As regards the §103 rejection, the examiner is incorrect to say that round tubes are an obvious development, as round tubes can be cleaned far more easily. Arrestors with non-round tubes are difficult to clean, as square or hexagonal rods leave insufficient space to provide a physically robust scraper. The combination of features in claim 1 lead to an arrester which can be maintained so as to remain useful for a reasonable period of time. In addition, the swift cleaning action permitted by the present invention allows cleaning to be carried out during

natural breaks in use, or even "on the fly". No downtime is needed and hence the effective life of the arrester can be extended significantly.

For example, on the exhaust of a diesel propelled vehicle, arresters with non-round tubes need to be replaced frequently, entailing removal of the vehicle from the sensitive area and removal of the arrester and replacement with a clean arrester. The arrester of the present invention, on the other hand, can be cleaned during a shift by use of a scraper plate without the necessity of closing down the engine. This would allow the vehicle to remain in service continually. This both reduces downtime and reduces the stock of arresters that must be kept.

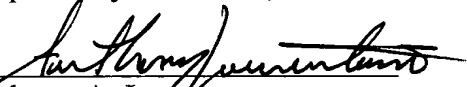
Accordingly, it would not be obvious to modify the heat exchanger of the '151 reference.

In view of the foregoing comments, Applicant believes the pending application is in condition for allowance.

A Petition for a Three-Month Extension of Time under 37 CFR 1.136(a) is filed concurrently herewith. Applicant believes no additional fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. FHW-081US from which the undersigned is authorized to draw.

Dated: November 30, 2004

Respectfully submitted,

By 

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